For Mobile, FET-POS, Debit Card, PDA, ECR 2.7V Print Voltage (B Series)

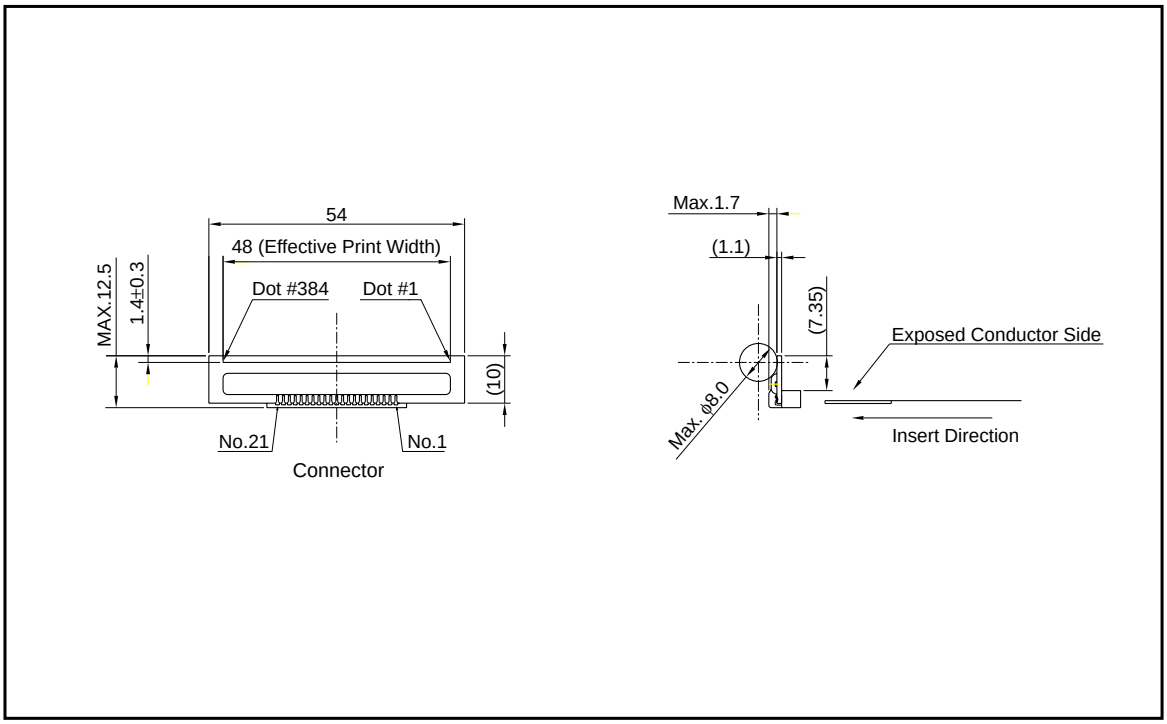
KA2002-BE10A

Not only hand-held printers, but card payment terminals (EFT-POS) and compact label printers require less than 8.5V of supply voltage.
ROHM's B Series of thermal printheads, developed using cutting-edge LSI technology, can operate on a single lithium ion battery and contribute to end-product miniaturization.

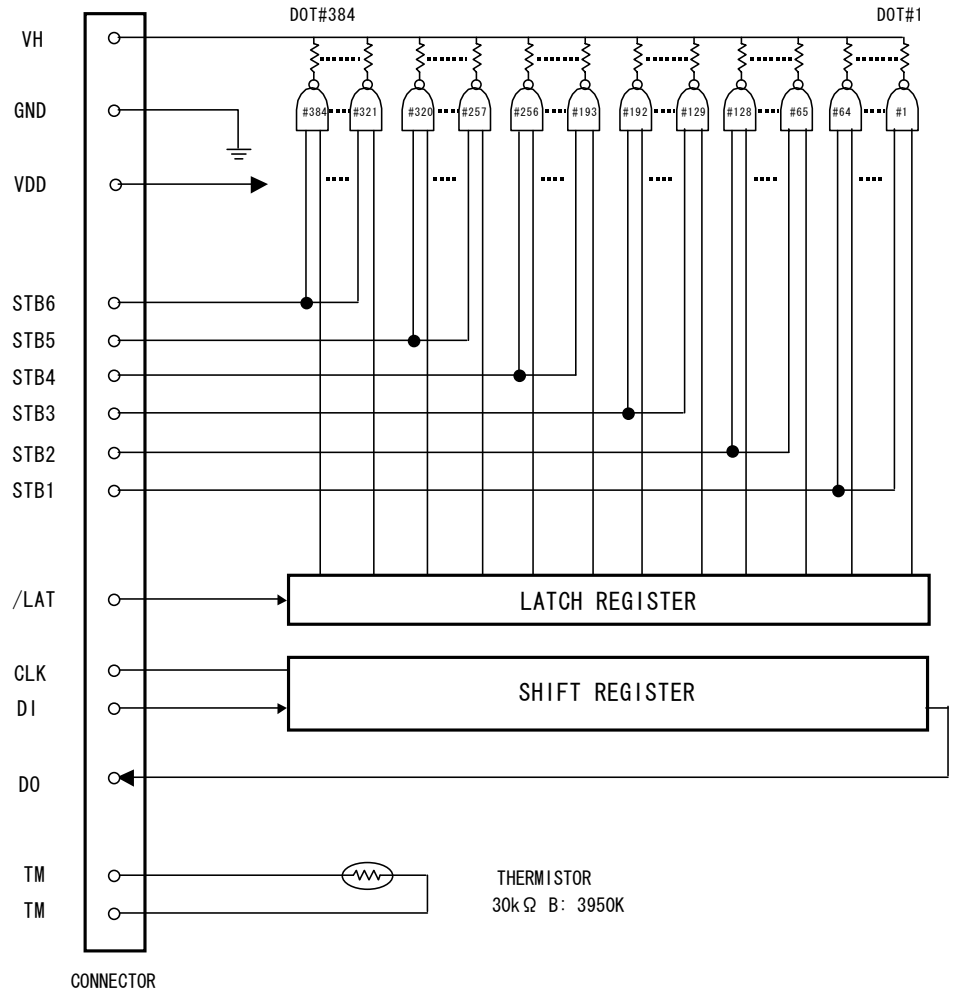
●Applications
Mobile printers
EFT-POS printers
Hand-held printers
Debit printers

●Features
1) The B series brings reduced height of protective resin for IC and enlarged paper pathway for thermal papers. Thanks to ROHM's latest LSI high integrated mounting technology and it's ultra slim 192bit driver IC.
2) The B series accede the great world class low energy consumption characteristics of GP series.
3) Because the print heads circuits draw 2.7V, the printer can be driven using a single lithium battery.

●Dimensions (Unit : mm)



●**Equivalent circuit**



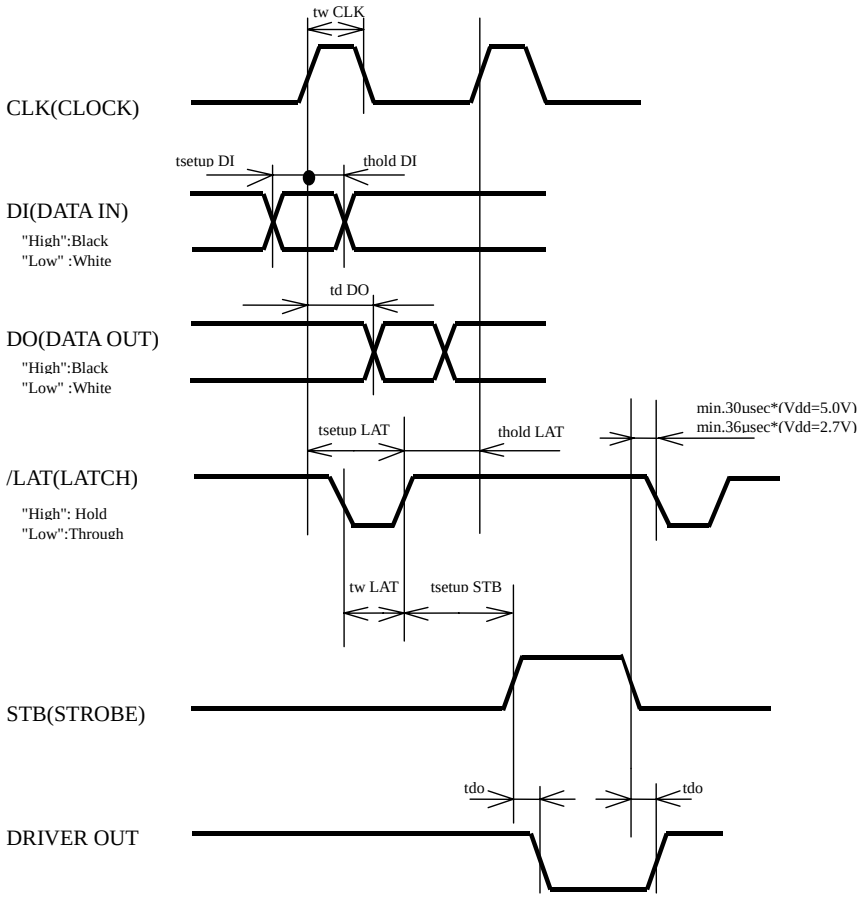
●**Pin assignments**

No.	Circuit
1	VH
2	VH
3	DO
4	$\overline{LAT}$
5	GND
6	GND
7	STB1
8	STB2
9	STB3
10	TM
11	TM

No.	Circuit
12	V_{DD}
13	STB4
14	STB5
15	STB6
16	GND
17	GND
18	CLK
19	DI
20	VH
21	VH

Note) The GND terminal 5 and 6 are not connected with the GND terminal 16 and 17.
These terminals shall be connected each other at the closest point to the printhead.

●**Timing chart**



*If delay time for Driver Out can not be secured enough, there is a possibility that VH would greatly. Please design the circuit so that VH does not exceed peak voltage

●**Characteristics**

Parameter	Symbol	Typical	Unit
Effective printing width	–	48	mm
Dot pitch	–	0.125	mm
Total dot number	–	384	dots
Average resistance value	Rave	176	Ω
Applied voltage	V_H	7.2	V
Applied power	P_O	0.27	W/dot
Print cycle	SLT	1.25	ms
Pulse width	T_{ON}	0.49	ms
Maximum number of dots energized simultaneously	–	64	dots
Maximum clock frequency	–	8	MHz
Maximum roller diameter	–	ϕ8.0	mm
Running life / pulse life	–	$50/1\times10^8$	km/pulses
Operating temperature	–	0~50	°C

●**Electrical characteristic curves**

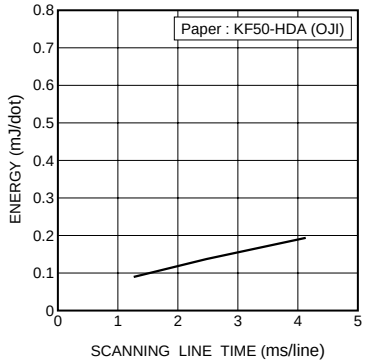


Fig.3 Adaptive speed chart

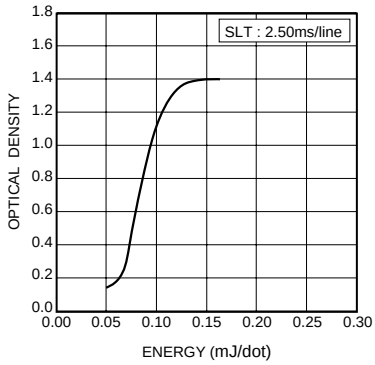


Fig.4 Representative density curve

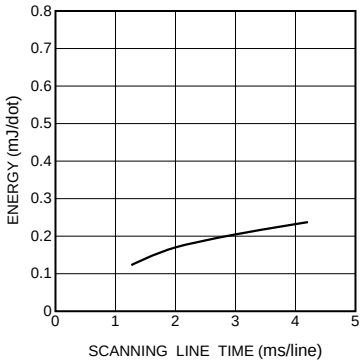


Fig.5 Maximum energy curve

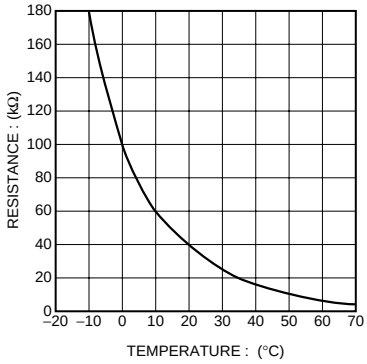


Fig.6 Thermistor curve

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ROHM CO., LTD. 21, Saiin Mizosaki-cho, Ukyo-ku, Kyoto 615-8585, Japan
TEL : +81-75-311-2121
FAX : +81-75-315-0172